ATOMIC LABS

INSTRUMENT

MANDALA

Draw-your-own-wave synthesizer

INSTRUMENT | VST3 | WINDOWS 64-BIT | 300 PRESETS | V1.0



USER MANUAL

VERSION 1.0 · 2026

01 About Mandala

Mandala's first oscillator is a wavetable of eight frames that you can draw yourself (8 frames x 64 points) or take from 24 factory wave sets. Oscillators 2 and 3 are analog-style; oscillator 3 can frequency-modulate, amplitude-modulate and ring-modulate the others, and oscillator 2 can hard-sync to oscillator 1.

A ladder filter, three envelopes, two LFOs, a 16-step modulation sequencer, unison and glide shape the sound, followed by tube, bit reduction, chorus / flanger / phaser, delay and reverb.

TYPE	FORMAT	SIGNAL	LATENCY
Instrument	VST3 · Win x64	MIDI in → stereo out	none

FACTORY PRESETS	CONTROLS	WINDOW	VERSION
300 + Init	100 automatable	Resizable	1.0

02 Quick start

1. Choose a preset and move the Frame control to scan through the wavetable.
2. Draw a frame on the wave display to create your own table.
3. Route Env C or the step sequencer to Frame for evolving sounds.
4. Use oscillator 3 as a modulator for FM bells and metallic tones.

INSTALLATION

Install

Copy the folder `Mandala.vst3` into `C:\Program Files\Common Files\VST3\`, then restart your DAW or rescan plug-ins. It appears under the manufacturer **Atomic Labs**.

This manual

A copy of this PDF lives inside the plug-in folder, next to `Contents`. Your DAW ignores it; it is there so the manual always travels with the plug-in.

03 The interface



Oscillator 1 (wavetable)

Wave Set (24 factory sets or your own drawing), Frame (position in the 8-frame table), Wave Bend, Coarse, Fine and Level. Draw a frame directly on the wave display.

Oscillators 2 and 3

Wave (saw, square, pulse, triangle, sine), Coarse, Fine and Level. Osc 2 has Pulse Width and Sync. Osc 3 > Wave FM and Osc 3 > Osc 2 FM, Ring Mod and Amp Mod use oscillator 3 as a modulator. Noise adds air.

Filter

Filter Mode (LP 24, LP 12, Band Pass, High Pass), Cutoff, Resonance, Drive, Key Track and Env B > Cutoff.

Envelopes

Env A = amp, Env B = filter, Env C = free, each with attack, hold, decay, sustain and release. Env C > Frame, > Pitch and > FM.

LFOs

LFO A (shape, rate or sync division) to pitch, frame and cutoff. LFO B to FM, amp and pulse width.

Step sequencer

16 steps with Step Length, number of Steps and Smooth, sent to Frame, Cutoff and / or Pitch.

Voice and FX

Voice Mode, Voices, Unison with detune and spread, Glide, Drift, Velocity > Amp, Bend Range. Tube, Bit Reduction, Mod FX (chorus, flanger, phaser), tempo delay and reverb, then Volume.

04 Presets

Mandala comes with **300** factory presets in 10 categories, plus an **Init** program to start from scratch. Every preset was designed for this plug-in and level-matched, so you can browse without jumps in volume.

30 Evolving Pads | **30** Wave Sequences | **30** Digital Basses | **30** Leads | **30** Bells & FM Keys

30 Plucks | **30** Vocal Morphs | **30** Sync & Pulse Width | **30** Textures & Drones | **30** FX & Glitch

A FEW TO TRY

- Lotus Pad
- Horizon Field
- Velvet Wash
- Sacred Pad
- Wheel Motion
- Stepping Sequence
- Mosaic Cycle
- Clockwork Motion
- Solid Growl
- Carved Low
- Growl Bass
- Digital Growl
- Gliding Solo
- Bright Voice
- Laser Line
- Temple Bell
- Chime Chime
- Gamelan Keys
- Tine Bell
- Koto Pick
- Pluck Pluck
- Tick Hit
- Drop Pick
- Whisper Choir
- Choir Vowel
- Chant Voice
- Vowel Choir
- Tearing Sweep
- Hollow Saw
- Sweeping Pulse
- Nebula Drone
- Infinite Air
- Tanpura Texture
- Shimmer Drone
- Bitcrush Noise
- Glitch FX

05 Tips

Wave sequences: route the step sequencer to Frame with Smooth off.

FM keys: Osc 3 at a ratio of 2 or 3.5 modulating Osc 1, short envelope C on the FM amount.

06 Atomic Labs essentials

These work the same way in every Atomic Labs plug-in.

Preset browser

Use the arrows next to the preset name to step through the presets, or click the name to open the menu sorted by category. The current category is shown above the name.

SAVE: your presets and banks

SAVE stores the complete state as your own preset (.atp) in Documents\Atomic Labs\Mandala\Presets. From the same menu you can delete presets and export or import a whole bank (.atb) to share or back up. Your presets appear at the end of the preset menu.

DICE

DICE rolls a brand-new patch: it starts from a factory design and changes the main settings at random. Not happy? Roll again, or step back to a preset.

SIZE and resizing

Drag the bottom-right corner to resize the window, or pick a fixed zoom from SIZE. The size is remembered with the project.

Automation

Every control can be automated and is listed with its full name in your DAW. Changes are smoothed, so automation never clicks.

Project recall

The whole state (including drawn waves, patterns, steps and window size where available) is saved with your project.

STABILITY

Every Atomic Labs plug-in is tested at sample rates from 44.1 to 192 kHz and at block sizes from 1 to 8192 samples, before and after the host prepares it, and with every factory preset. The audio code never allocates memory while playing, and signals are protected against invalid values, so it stays quiet and stable in long sessions.

07 Control reference

Every automatable control as your DAW lists it, with its range and default value. Where a set of controls repeats (for example several identical layers, bands or slots), it is shown once.

General

CONTROL	RANGE / OPTIONS	DEFAULT
Wave Set	Saw to Square · Sine to Fold · Pulse Width Sweep · Harmonic Sweep · Vowel Morph · Organ Drawbars · Sync Sweep · Bell Partials · Digital Steps · Odd to Even · Formant Glass · Sine to Saw *+ 13 more*	Saw to Square
Frame	0 % to 100 %	0 %
Ring Mod	0 % to 100 %	0 %
Amp Mod	0 % to 100 %	0 %
Noise	0 % to 100 %	0 %
Filter Mode	LP 24 · LP 12 · Band Pass · High Pass	LP 24
Cutoff	20 Hz to 20.00 kHz	3.56 kHz
Resonance	0 % to 100 %	15 %
Filter Drive	0 % to 100 %	0 %
Key Track	0 % to 100 %	50 %
Step Sequencer	Off · On	Off
Step Length	1/32 · 1/16 · 1/8T · 1/8 · 1/8. · 1/4 · 1/2 · 1 bar	1/16
Steps	1 to 16	16
Step Smooth	0 % to 100 %	20 %
Voice Mode	Poly · Mono · Legato	Poly
Voices	1 to 8	8
Glide	Off to 1505 ms	Off
Drift	0 % to 100 %	10 %
Velocity > Amp	0 % to 100 %	50 %
Bend Range	0 to 12	2
Tube	0 % to 100 %	0 %
Bit Reduction	0 % to 100 %	0 %
Reverb	0 % to 100 %	0 %
Reverb Size	0 % to 100 %	60 %
Volume	-36.0 dB to +6.0 dB	-4.0 dB

Wave

CONTROL	RANGE / OPTIONS	DEFAULT
Wave Level	0 % to 100 %	80 %
Wave Bend	0 % to 100 %	0 %
Wave Coarse	-24 to 24	0
Wave Fine	-50.0 ct to +50.0 ct	0.0 ct

Osc

CONTROL	RANGE / OPTIONS	DEFAULT
Osc 2 Wave	Saw · Square · Pulse · Triangle · Sine	Saw
Osc 2 Coarse	-24 to 24	0
Osc 2 Fine	-50.0 ct to +50.0 ct	+6.0 ct
Osc 2 Level	0 % to 100 %	0 %
Osc 2 Pulse Width	5 % to 95 %	50 %
Osc 2 Sync	Off · On	Off
Osc 3 Wave	Saw · Square · Pulse · Triangle · Sine	Sine
Osc 3 Coarse	-24 to 36	0
Osc 3 Fine	-50.0 ct to +50.0 ct	0.0 ct
Osc 3 Level	0 % to 100 %	0 %
Osc 3 > Wave FM	0 % to 100 %	0 %
Osc 3 > Osc 2 FM	0 % to 100 %	0 %

Env

CONTROL	RANGE / OPTIONS	DEFAULT
Env B > Cutoff	-100 % to +100 %	+30 %
Env A Attack	0 ms to 10.00 s	4 ms
Env A Hold	0 ms to 2.00 s	0 ms
Env A Decay	1 ms to 10.00 s	300 ms
Env A Sustain	0 % to 100 %	80 %
Env A Release	2 ms to 10.00 s	300 ms
Env B Attack	0 ms to 10.00 s	4 ms
Env B Hold	0 ms to 2.00 s	0 ms
Env B Decay	1 ms to 10.00 s	400 ms
Env B Sustain	0 % to 100 %	30 %

Env B Release	2 ms to 10.00 s	400 ms
Env C Attack	0 ms to 10.00 s	10 ms
Env C Hold	0 ms to 2.00 s	0 ms
Env C Decay	1 ms to 10.00 s	600 ms
Env C Sustain	0 % to 100 %	0 %
Env C Release	2 ms to 10.00 s	500 ms
Env C > Frame	-100 % to +100 %	0 %
Env C > Pitch	-100 % to +100 %	0 %
Env C > FM	-100 % to +100 %	0 %

LFO

CONTROL	RANGE / OPTIONS	DEFAULT
LFO A Shape	Sine · Triangle · Square · Saw · Random	Sine
LFO A Rate	0.05 Hz to 20.00 Hz	0.30 Hz
LFO A Sync	Off · On	Off
LFO A Division	1/32 · 1/16 · 1/8T · 1/8 · 1/8. · 1/4 · 1/2 · 1 bar	1/4
LFO A > Pitch	-100 % to +100 %	0 %
LFO A > Frame	-100 % to +100 %	0 %
LFO A > Cutoff	-100 % to +100 %	0 %
LFO B Shape	Sine · Triangle · Square · Saw · Random	Triangle
LFO B Rate	0.05 Hz to 20.00 Hz	0.12 Hz
LFO B > FM	0 % to 100 %	0 %
LFO B > Amp	0 % to 100 %	0 %
LFO B > Pulse Width	0 % to 100 %	0 %

Seq

CONTROL	RANGE / OPTIONS	DEFAULT
Seq > Frame	-100 % to +100 %	0 %
Seq > Cutoff	-100 % to +100 %	0 %
Seq > Pitch	-100 % to +100 %	0 %

Step

CONTROL	RANGE / OPTIONS	DEFAULT
Step 1	-100 % to +100 %	0 %
Step 2	-100 % to +100 %	0 %
Step 3	-100 % to +100 %	0 %
Step 4	-100 % to +100 %	0 %
Step 5	-100 % to +100 %	0 %
Step 6	-100 % to +100 %	0 %
Step 7	-100 % to +100 %	0 %
Step 8	-100 % to +100 %	0 %
Step 9	-100 % to +100 %	0 %
Step 10	-100 % to +100 %	0 %
Step 11	-100 % to +100 %	0 %
Step 12	-100 % to +100 %	0 %
Step 13	-100 % to +100 %	0 %
Step 14	-100 % to +100 %	0 %
Step 15	-100 % to +100 %	0 %
Step 16	-100 % to +100 %	0 %

Unison

CONTROL	RANGE / OPTIONS	DEFAULT
Unison	1 to 5	1
Unison Detune	0 % to 100 %	20 %
Unison Spread	0 % to 100 %	50 %

Mod

CONTROL	RANGE / OPTIONS	DEFAULT
Mod FX	Off · Chorus · Flanger · Phaser	Off
Mod FX Amount	0 % to 100 %	50 %
Mod FX Rate	0 % to 100 %	30 %

Delay

CONTROL	RANGE / OPTIONS	DEFAULT
Delay Mix	0 % to 100 %	0 %
Delay Feedback	0 % to 90 %	35 %
Delay Time	1/32 · 1/16 · 1/8T · 1/8 · 1/8. · 1/4 · 1/2 · 1 bar	1/8



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Atomic Labs makes original instruments and effects with futuristic, animated interfaces, deep sound design and hundreds of presets in every plug-in.

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